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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,278	01/19/2001	Charles A. Jennings	106108	9674

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EXAMINER	
RAMAN, USHA	

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,278	JENNINGS ET AL.	
	Examiner	Art Unit	
	Usha Raman	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-140* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-58 and 60-140* is/are rejected.

7)☒ Claim(s) *59* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7-12-05, 12-30-03*, 6-22-02
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 24 and 54 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 appears to be incomplete. Applicant is requested to revise and make appropriate corrections. The claim has been best interpreted as "playlist to the stream caster if the stream caster is configured to stream the requested media" for the purpose of art rejection.

Claim 52 recites the limitation "the status" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

3. Claim 59 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-58, 60-140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duso et al. (US Pat. 5,892,915) in view of Pan et al. (US Pat. 7,065,042)

In regards to **claims 102, 1, 10, 45, 134, 3, 33, 34, 51, 53, 67, 11, 12, 13, 65, 80 and 97**, Duso discloses, a system for streaming media to a viewer over a communications network comprising a server controller, and a stream server. A client initiates a session for playback with the server, and the server fetches the data for streaming. Duso fails to disclose the steps of validating a reservation with a valid reservation ID prior to accepting the session. Duso also fails to disclose the details of determining resource availability for a reservation made in advance.

Pan discloses a switch for streaming media to a viewer over a network (see column 2, lines 20-25, lines 32-34) comprising:

A mechanism adapter (19) configured to accept a session from the viewer (14) to stream at least partially the requested media upon receiving and validating a reservation identification using a valid reservation identification (via allowance validator 21).

A network resource manager engine 26 configured to determine if the resources (such as bandwidth and hardware resources such as switches, routers, etc.) are available are configured to stream the requested media (resource validator 22), and if so, to receive reservation data comprising valid reservation identification (valid authentication through valid user ID) and transmit the valid reservation identification to the a mechanism adapter (19), that allocates the resource to satisfy the user request; and

A switch controller (resource validator 22) configured to monitor the network resources to notify the network resource manager engine of the status of resources in the system.

Pan therefore discloses the step of monitoring system resources, receiving a request for a session, checking system resource availability, validating the reservation request, upon validation, allocating the required resources to satisfy the user reservation.

It would have been obvious to one of ordinary skill in the art to modify the system of Duso in view of Pan, thereby enabling the system to accept advance reservation requests and validate the reservation in accordance with valid reservation ID and system resource availability.

In regards to claim 103, 135, 76, 106, 69, 71, 73, 78, and 104, see claim 102. In further regards to the aforementioned claims, the modified system of Duso in view of Pan comprises a media server (20); a signal proxy for accepting a session based on validating a reservation ID received from the viewer and communicating signaling between the viewer and the media server if the session is accepted (allowance validator 21) and a stream proxy configured to transmit media streamed from media server to the viewer (in streaming server)

In regards to **claim 130**, and 72, see claim 102 above. The modified system discloses the step of receiving at a stream caster reservation data comprising a valid reservation identification. The system further discloses the step of terminating an attempted session to stream requested media upon receiving and invalidating a

reservation identification using the valid reservation identification. See column 6, lines 25-35.

In regards to claim 131, since the allowance validator communicates the status of the validation to the engine to carry on to the next step, the step of failure will also be communicated in order to notify engine 26 of termination of event. See Pan: figure 2 and column 4, lines 52-62.

In regard to claims 132, 107, 133, 28, 29 and 108, see claim 102.

In regards to claims 137, 136 and 138, see claim 102. In further regards with respect to the limitation "streaming simultaneously in a parallel sessions", Duso comprises a plurality of streaming servers and discloses streaming a plurality of parallel sessions of a movie (see figure 16);

In regards to claim 2, 79, the modified system of Duso in view of Pan comprises a plurality of stream casters (plurality of streaming servers) configured to stream the media from the system. See Duso: figures 13 and 16

In regards to claim 4 and 36, the modified system comprises media storage (23 and 24 in Duso) configured to store the media. See Duso: figs 1 and 2

In regards to claims 5, 6, 8, 31, 37, 40, and 117, the modified system comprises communications over the Internet. Such communications use the Internet Protocol packet switching for communicating with various devices. See Pan: column 2, lines 26-29.

In regards to claims 7, 30, 58, 126, 128, and 129, the modified system comprises the step of transmitting information block comprising reservation identification from the network resource manager. See Pan: column 2, lines 60-column 3, line 14. For a plurality of requests for resource reservations, a plurality of information blocks are transmitted.

In regards to claims 9, and 55, the modified system uses the RSVP for reserving resources to meet a request for the streaming media. The system therefore maintains a "reservation state model" in accordance with the RSVP (reservation state) comprising the reservation identification and at least one session related message such as the RSVP SESSION call made for registering a session and RSVP teardown messages upon completion of a session.

In regards to claims 15, 16, 18, 32, and 35, and the modified system uses RSVP to reserve system resources. In accordance with RSVP specifications, a user may modify a resource reservation using the RESERVE call, which contains the session id of the session. Therefore, the state change will comprise the session id of the viewing event in the event a change is made to the session.

In regards to claims 19, 17 and 140, the modified system comprises a plurality of stream servers and therefore is capable of streaming a different portions of the requested media at each of the plurality of servers in parallel sessions.

In regards to claims 21, 22, 23, 46, 47, 49, 50, 54, 56, 63, 66, 93, 94, 98, 99, 100, and 101, the switch load controller (resource validator 22) monitors the network resources to notify the network resource manager engine of the status of resources

(hardware and network bandwidth, etc.) in the system. See column 6, lines 64-67 and column 7, lines 1-5.

In regards to claim 25, 14, and 48, the switch system (network resource manager) communicates with a routing processor (device 30), wherein the stream routing processor is configured to transmit signaling to and receive signaling from the routing processor. See Pan: figure 1.

In regards to claim 26, 44, 120, 122, and 41, the network devices communicate over the Internet (a VPN) and therefore communicates out of band to a broadband device.

In regards to claim 27, the modified system fails to disclose that the broadband device is a set top box. Examiner takes official notice that set top boxes were well known in the art at the time of the invention used for receiving television signals and programs on demand. It would have obvious to one of ordinary skill in the art to modify the system to include a set top box that is capable of receiving cable television signals as well as requesting media over the network.

In regards to claim 38, the modified system is configured for multicasting a live event. See Duso: column 5, lines 29-34.

In regards to claims 42, and 24, the reservation data (request for reservation) comprises a play-list. See Duso: abstract.

In regard to claims 43, 119, and 121, the modified system fails to disclose the step of transmitting and receiving signaling in-band. Examiner takes official notice that at the time of the invention, transmitting and receiving signals in band was well

known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system to use in band signaling thereby making more bandwidth available.

In regard to claim 52, the switch load controller monitors and records status comprising current capacity. See column 6, lines 64-67 and column 7, lines 1-5.

In regards to claims 57 and 123, the modified system uses RSVP for reserving resources. In accordance with the RSVP specification, a session tear down message is received in order to return the resources back to the system prior to completion of the session.

In regards to claim 61, see claim 60 above. In further regards to claim 61, it would be obvious to include additional information regarding the session (i.e. the information block) in order to record a detailed account of the logs.

In regards to claims 62, 88 and 89, see claim 60 above. In further regards to claims 62 and 88, it would be obvious to record information on historical pull interface, to track pattern of the media that have been requested.

In regard to claims 64, 60, 70, 81, 82, 83, 84, 85, 86, 87, 124, and 125, the modified system discloses the step of maintaining log of events in repository. See Pan: column 5, lines 54-57. It would be obvious to maintain signal logs and media server logs to maintain a history of usage, to observe trend on bandwidth usage.

In regards to claim 68, see claims 23 and 45 above.

In regards to claims 74, 77 and 105, see claims 102 and 103, above. In further regards to claim 74, examiner takes official notice that it is well known for a

server controller to find another streaming server in the event one streaming server is not able to satisfy the request. It would have been obvious to one of ordinary skill in the art the time of the invention to modify the system to include the capability to find an alternative streaming server to stream the media, thereby satisfying the a users request for media.

In regards to claim 75, the stream proxy assigns a stream server to stream the requested media to the user. In doing so, the stream proxy binds the media server to a public internet protocol address so that the user can establish connection with it.

In regards to claim 90, examiner takes official notice that it is well known in the art to use file transfer protocol for transmitting files. It would have been obvious to transmit the log files using the file transfer protocol in order to transmit the files over a reliable connection.

In regards to claims 92 and 91, the modified system comprises checking for resource availability prior to accepting a session. This step checks for the necessary bandwidth to maintain a required a quality of service. This step also inherently checks for an active connection since it monitors status of the various network components.

In regards to claim 95, and, 96 system comprises a human machine interface (policy user interface), in order to allow the network administrator to configure the policies for the system. See Pan: column 3, lines 52-column 4, line 2. The human

machine interface further comprises a command interface to allow the administrator to configure these changes.

In regards to claim 109, see claims 25 and 32.

In regards to claim 110, the modified system further receives the reservation request indirectly from device (30). See Pan: figure 1,

In regards to claim 111, the system comprises using an Internet protocol address. See Pan: column 6, lines 2-9.

In regards to claims 112, and 113, the modified system comprises receiving the reservation identification at the address of the stream caster, and if validated, accepting the session at the address. See Pan: column 2, lines 62-column 3, line 3.

In regards to claims 114 115, and 116, the modified system receives a request for initiating the session (i.e. set up message) at the stream caster and acknowledges it by streaming the requested media, thereby acknowledging the setup message.

In regards to claim 118, since the modified system transmits data over the Internet, the requested media is transmitted from the streaming server using packet switch. See Pan: column 2, lines 26-29 and Duso: column 6, lines 46-52.

In regards to claim 127, see claim 126 and 114 above.

In regards to claim 139, the modified system comprises the step of streaming a plurality of parallel sessions from one streaming server. See Duso: figure 16

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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